"Copy-Right or Copy-Wrong?"

Criminological Research Methods

MSc Criminology and Criminal Justice

Supervisor: Dr Richard Jones

Matriculation Number: 0236178

Exam Number: 3617833

Table of contents

•	Introduction	1
•	Aims and Objectives	3
•	Method	6
•	Data Analysis	10
•	Summary and Conclusion	15
•	Bibliography	17
0	Appendix A – Advertisements	i
0	Appendix B – Information Video	ii
0	Appendix C – Questionnaire	iii

Introduction

Following the release of the peer-to-peer file sharing program 'Napster' in the 1990s there has been an explosion in file sharing programs operating in technologically similar ways. The major use for this type of software is the sharing of music files, typically in the mp3 format. In doing so, many users, wittingly or unwittingly infringe copyright laws.

In recent years the record industry has filled lawsuits against individuals who illegally file sharing, as many as 12,000 according to Koster (2005: 1). However this has had little impact on the level of file sharing. It would seem that people are not worried about the risk of legal action, at least not enough to stop.

The vast majority of research on this issue has focussed on young people. Koster (2005: 1) remarks that college students are 'considered to be some of the largest users of illegal file sharing'; this view is supported by Zentner (2006: 85) who states 'file sharing is an activity concentrated in the younger population'. Taking this point, the target population for this study will be young people, specifically University of Edinburgh students.

Lawrence Lessig (2005: 68) has developed a typology of individuals who file share and which breaks the label of 'file sharer' into 4 distinct sub-groups:

- A. There are some who use sharing networks as substitutes for purchasing content
- B. There are some who use sharing networks to sample music before purchasing it
- C. There are many who use sharing networks to get access to copyrighted content that is no longer sold or that they would not have purchased because the transaction costs off the Net are too high
- D. There are many who use sharing networks to get access to content that is not copyrighted or that the copyright owner wants to give away

In addition to this, many separate studies have been conducted to assess the impact of file sharing on music purchases. These studies have produced mixed results ranging from downloading causing a '30 percent reduction' in sales (Zentner, 2006: 87) to having an effect that is 'statistically indistinguishable from zero' (Oberholzer-Gee and Strumpt, 2007: 1).

This project will attempt to combine the theoretical frame developed by Lessig and empirical data gathered on peer-to-peer file sharing and its effect on sales.

Aims and Objectives

The aim of this project is to examine Lessig's file sharing typology, as outlined in the Introduction, against empirical evidence. The existence of the 4 distinct components of this typology will be examined in real world conditions with the aim of ascertaining their existence in reality or simply in theory. This research will then go further and examine the effects that these different types of file sharers have on legitimate media sales. These aims can be broken down into the following objectives:

- 1. To test the existence and accuracy of Lessig's 4 user typology through empirical data,
- 2. To further Lessig's typology if found to be insufficient,
- 3. To examine the effects that these different types of file sharers have on legitimate media sales.

These aims and objectives were operationalised into 3 research questions to give "direction and coherence, a boundary, a focus, and a framework for writing up" (Francis, 2006: 38).

 Do young people regard the various forms of copy protection and Digital Rights Management (DRM) found in online media as legitimate and fair?

This question examines what role copy protection and restrictions play in an individual's motivation to use Peer-to-Peer network software. This question will lead into enquiry regarding the knowledge possessed by an individual as well as their exposure to such copy-protection mechanisms, raising such questions as:

- Are DRM techniques too restrictive and push users to download illegally?
- How much exposure have individuals had to the various different restrictions available?

Having established an individual's view of legitimate online media files, enabled with copy protection and DRM mechanisms, it is important to examine how these views

affect an individual's willingness and motivation to engage in illegal media filesharing.

Hypothesis: 'Individuals are willing to tolerate copy protection mechanisms that they deem to be fair and not overly restrictive'

2. Do young people regard downloading copyrighted media from a Peerto-Peer network as inherently wrong?

This question will examine an individual's response to the issue of copyright infringement and the extent to which they are willing to break copyright laws as a result of file sharing. The word 'inherently' is crucial to this question. Using Lessig's typology of the 4 types of file-sharer, as mentioned in the Introduction, it can be seen that there are those individuals who regard copyright as inherently wrong as a concept and there are those who occasionally download 'sample' files before respecting the laws of copyright and purchasing legally such files.

Whilst both cases are infringing on copyright, the wider end results are very different and it is believed that an individual's opinion of copyright will vary dependant on the type of file-sharer they are. Issues to be examined will include: an individual's concerns or lack thereof regarding the prospect of infringing copyright, and the subsequent consequences of committing such an act, as well as the reasons an individual has for infringing copyright through file sharing.

Hypothesis: 'An individual's view that Peer-to-Peer downloading is wrong is linked to the volume of downloading they are engaged in. Those who download significant numbers of files are less likely to believe it is wrong.'

3. To what extent does downloading copyrighted media from a Peer-to-Peer network actually have an effect on an individual's propensity to legitimately purchase files? This question will provide a fitting addition to the previous questions in that it will take the individual's answers, based on their experiences and attitudes, and apply them to practical scenarios. By doing so the participants can be categorised based on Lessig's typology of file sharer with the focus on type A and type B individuals. In addition this will also provide empirical data, which can be used to test the claims of the major industry associations who suggest that illegal downloading harms legitimate sales of media.

Hypothesis: 'Peer-to-Peer downloading has little or no effect on an individual's propensity to legally purchase media.'

Method

It was decided that, as the topic of the research is based primarily online, using online research tools would be the efficient and effective way in which to gather useful data.

The survey method used in this project was a structured questionnaire consisting of 27 questions, of which 23 were substantive and 4 were for classification purposes. The questionnaire was structured into 4 sections: attitudes towards copy protection, attitudes towards peer-to-peer networks, attitudes towards peer-to-peer downloading and legitimate media sales, and classification questions. These sections were designed to flow in a logical order mirroring the research questions; "questions should be designed to help achieve the goals of the research" (Robson, 2002: 241). As each research question presents a narrowing of scope and focus in order to achieve a more specific study, so do the sections of the questionnaire. Beginning with a wide focus towards copy protection, this leads to an examination of how one's attitudes to copy protection can shape their peer-to-peer use, concluding with the cumulative effects these have on retail sales.

The structured questionnaire was chosen as the research tool in order to collect a large number of responses given the time constraints of the project. This particular tool allowed for standardised enquiry free of interviewer effects; "questionnaires do not suffer from the problem of interviewers asking questions in a different order in a different way" (Bryman, 2004: 134). The questionnaire was placed online using the Bristol Online Survey tool. This provided a unique web address to which participants could be directed. This also allowed respondents to complete the questionnaire in their own time, allowing for responses to be saved and completed later.

It was noted that the use of an online questionnaire could have some drawbacks, in the form of sample bias and skewing; "not everyone in the target population is in the frame population" (Couper, 2000: 467). However given the fact that the research project presupposed access and familiarity with the Internet, it was felt that many of these issues were not problematic to this survey. Sample bias is inherent in the topic of the survey itself as a result of examining only those who actually file share rather than the average citizen. Secondly, access issues, were not a major concern as an

Internet connection is required to partake in the activities being researched and as a result participants are likely to have easy access to the Internet.

The target population for this research project consists of University of Edinburgh students. This population was selected due to their heavy involvement, demonstrated in the introduction, in the activities being researched. Also ease of access issues proscribed that studying students at the University of Edinburgh – where I am located – would be more practical in terms of time-constraints than examining another university of college. The outcome is expected to be comparable.

The sample frame used to identify potential participants consisted of an online message board and a social-networking website (see Appendix A). These were all identified during preliminary research as having rich concentrations of the target population. These online locations were identified as:

- Edinburgh University Student's Association web forum: http://eusa.ed.ac.uk
- Facebook: http://www.facebook.com

In the case of the student's association website, advertisements were placed outlining the research and containing a hyperlink to the survey. In the case of the social-networking website 'Facebook', a specific 'group' was created. This 'group' functions as a forum to which participants were invited to join. Similarly this 'group' contained an outline of the research and a hyperlink to the survey.

In both locations, a hyperlink to a video clip was also added (see Appendix B). This video clip was created to visually represent much of the information issues, such as anonymity, consent, and questions and answers which would have been discussed had the questionnaire been delivered face-to-face. This video clip ran to approximately 1 minute 30 seconds. This did not however replace notes attached to the questionnaire itself. Several editions of the video were recorded and piloted on both individuals knowledgeable of the research topic and those with little experience of online file sharing.

The sample method consisted of a mixture of random sampling and snowballing. Initial participants were contacted through online message boards and social-networking websites. These initial participants were then requested, but not obliged, to invite others to complete the questionnaire, through an e-mail link. Whilst this could have presented issues of a closed survey sample, the nature of the topic meant that, to an extent, the issue of online file sharing is an inclusive one. The electronic nature of the questionnaire and of the snowballing methods meant that participant and those they had contacted – likely their friends – were removed from face-to-face contact and as a result had little chance to discuss the subject of the questionnaire.

With the research questions in mind, the questionnaire was drafted and piloted on individuals both knowledgeable about online file sharing and those who had little experience. The aim of this was to test out both the language and comprehensibility of the questions but also the level of technicality of the terminology used. With many Internet subjects there is a large amount of terminology that is only understood by those knowledgeable of the subject. The aim of the pilot was to reach a balance to ensure than participants fully understood the questions and completed the questionnaire.

Taking on board the advice and comments from the test participants, the questionnaire was launched and ran for a period of 4 weeks (22nd February 2007 to 22nd March 2007) and surveyed 119 individuals. This high response rate led to the results having a greater degree of representativeness and generalisablity (Bryman, 2004: 136).

In order to ensure the validity of the project, special care was taken, in the form of 'content validity' to make sure that the questions posed to the participants were relevant and appropriate to the aims and objectives of the survey. This made certain that the "indicators measure the different aspects of the concept" (de Vaus, 2002: 54). This was ensured through the rigorous process of piloting and taking onboard feedback from test participants.

The reliability of the project was made possible through a process of internal consistency, by ensuring that all participants faced the same questions under the same conditions. By the same conditions, it is meant that the same online conditions were

present, such as the same recruiting advertisements and the same questionnaire design and layout. Secondly, reliability was ensured through triangulation with other sources of relevant research as demonstrated in the Introduction.

Given the nature of the research topic and the issues of legality surrounding it, it was important to stress to the participant the anonymity that was being afforded to them. At no time does the questionnaire, or the project as a whole, ask for any personal details and no useable personal details are recorded through accessing the website at which the questionnaire is located. Considering these ethical issues, and the School of Law's ethical policies¹, it was important to pilot the relevant wording of the information attached to the questionnaire. Subsequent revisions were made in order to simplify the wording.

¹ http://www.law.ed.ac.uk/research/researchoffice/researchethics.aspx (accessed 18/03/07)

Data Analysis

1. Do yo	1. Do you own a portable media device (such as a MP3 player)?							
Yes:		85.7%	102					
No:		13.4%	16					
Don't know:		0.8%	1					
Don't want to answer:		0.0%	0					

Figure 1

An initial statistic worthy of reference is that of the prevalence of portable media devices. The results show that 85.7% of respondents own such a device.

First Hypothesis:

6. "Protection mechanisms, such as DRM, as well as other restrictive measures are the best way to reduce piracy"							
Strongly agree:		0.0%	0				
Agree:		8.4%	10				
Neither agree nor disagree:		12.6%	15				
Disagree:		21.8%	26				
Strongly disagree:		27.7%	33				
Don't know:		29.4%	35				
Don't want to answer:		0.0%	0				

Figure 2

The results show that 49.5% of respondents either strongly disagree or disagree that restrictive mechanisms on media files are the best way to reduce illegal downloading and piracy. With nearly half of respondents rejecting the idea of protection mechanisms, it will be difficult to find restrictions that will be acceptable to these individuals.

Results are cross tabulated by question "6. "Protection mechanisms, such as DRM, as well as other restrictive measures are the best way to reduce piracy"

5. Record companies list media piracy as the main reason for introducing copy protection mechanisms. What forms of restrictions are you willing to accept if you were to buy copy protected media files?	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Don't know	Don't want to answer	Totals
Restrictions on the number of plays in a specified time period	0	0	0	0	0	2	0	2
Restrictions on the number of plays in total	0	0	0	0	0	1	0	1
Restrictions on the ability to fast-forward or rewind	0	1	0	2	0	2	0	5
Restrictions on the ability to make copies	0	4	7	10	2	19	0	42
Restrictions (software-based) on sharing media with other devices	0	3	5	2	1	12	0	23
Incompatibility with some portable media players	0	1	0	2	0	4	0	7
None	0	4	6	13	29	10	0	62
Don't know	0	0	2	1	0	1	0	4
Don't want to know	0	0	0	0	0	0	0	0
Other	0	0	0	0	3	0	0	3
Totals	0	13	20	30	35	51	0	149

Figure 3

Supporting the previous point, it can be seen that those respondents who rejected the notion of restrictions are unwilling to accept any on the media files they were to buy, as suggested by the 'none' option. However those (few) respondents who support the need for protective mechanisms/restrictions are willing to accept a wide range of protective measures on the media files they buy; including limits on the ability to make copies and compatibility with other devices and media playing software.

Thus it can be suggested that the hypothesis has been proved, in the case of this study, as in order for individuals to accept restrictions, they must find them to be fair. However the majority of respondents do not find them fair (see figure 2) and therefore are unwilling to accept any restrictions as demonstrated above.

Second Hypothesis:

Results are cross tabulated by question "7. Have you, in the past 3 months, downloaded any form of media file from the Internet?"

14. "Sharing copyrighted media files via a Peer-to-Peer network infringes copyright laws and is illegal"	Yes	No	Don't want to answer
Strongly agree	10	0	0
Agree	50	11	0
Neither agree nor disagree	19	2	0
Disagree	12	2	1
Strongly Disagree	5	0	0
Don't know	3	4	0
Don't want to answer	0	0	0
Totals	99	19	1

Figure 4

These results show that over $2/3^{\text{rds}}$ of respondents who download media files illegally either agree or strongly agree that what they are doing is infringing copyright law and is illegal. These results were statistically significant at the 5% barrier.

Results are cross tabulated by question "14. "Sharing copyrighted media files via a Peer-to-Peer network infringes copyright laws and is illegal""

9. How many media files have you downloaded via a Peer-to-Peer network in the past 3 months?	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly Disagree	Don't know	Don't want to answer
None	1	18	5	2	1	5	0
Between 1 and 9	4	15	4	3	0	1	0
Between 10 and 24	1	6	1	1	1	1	0
Between 25 and 49	0	3	3	3	1	0	0
Between 50 and 74	0	3	2	2	0	0	0
Between 75 and 99	2	2	1	2	1	0	0
Between 100 and 149	0	5	3	0	0	0	0
Between 150 and 199	1	2	1	0	0	0	0
Between 200 and 299	0	4	0	0	0	0	0
Between 300 and 499	0	0	0	0	0	0	0
500 or more	0	1	0	1	1	0	0
Don't know	1	2	1	1	0	0	0
Don't want to answer	0	0	0	0	0	0	0
Totals	10	61	21	15	5	7	0

Figure 5

Expanding on the previous point it can be seen that the majority of respondents who agree that illegal downloading is wrong actually share relatively few files; the median number of files being between 0 and 24 over a three-month period. This supports the hypothesis that a respondent's view of the legality of downloading has a restrictive effect on the volume of media files downloaded. These results were found to be statistically significant at the 10% barrier.

Third Hypothesis:

Results are cross tabulated by question "1. Do you own a portable media device (such as a MP3 player)?"

2. Have you ever bought a media file from an online retailer?	Yes	No	Don't know
Yes	46	5	1
No	56	11	0
Don't want to answer	0	0	0
Totals	102	16	1

Figure 6

When cross tabulating the ownership of media devices with buying media files online, there is little difference between the numbers of individuals who buy media files and those who don't. Indeed, with such a small sample, these results were found to be not statistically significant.

Results are cross tabulated by question "1. Do you own a portable media device (such as a MP3 player)?"

7. Have you, in the past 3 months, downloaded any form of media file from the Internet?	Yes	No	Don't know
Yes	87	11	1
No	14	5	0
Don't want to answer	1	0	0
Totals	102	16	1

Figure 7

However it can be seen from the results that individuals participating in this survey, who own a portable media device, are more willing to download media files from websites and Peer-to-Peer than legitimately purchase them from an online retailer.

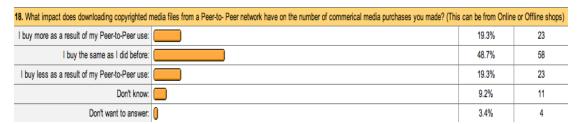


Figure 8

When looking at both offline and online media sales, it can be seen that nearly half (48.7%) of respondents still legitimately purchase the same volume of media as they did before Peer-to-Peer. This suggests that there still exists a significant volume of legitimate media sales and thus supports the hypothesis of this study, backed up by

previously cited scholars, that Peer-to-Peer has no effect on legitimate media sales. However, due to the size of the study, the results were not statistically significant.

Summary and Conclusion

The Bristol Online Survey tool has allowed for an easily accessible questionnaire to be designed and implemented. However, due to its design, it is theoretically possible to submit multiple completed questionnaire responses. Yet in order to do this, a user must re-enter all their responses again and thus it is negligible as to whether an individual would be inclined, either through malice or the time involved, to do so.

The length of the survey, at 27 questions may have put individuals off responding; "the value of surveys that could be done on the Web is limited...by the willingness of people to do them". (Couper, 2000: 465). Indeed there were 4 questionnaires that were saved by respondents but not returned to and completed. However, with no way of contacting them, it is impossible to say whether this was the reason.

A good sampling frame is described as one "where all the members of the population of interest have an equal chance of being selected for the sample" (Robson, 2002: 241); using the Edinburgh University Student's Association website in order to achieve a random sample presupposed that all students would access this website on a regular basis. Similarly using social-networking website 'Facebook' presupposed a high degree of usage by the target population. Whilst both these websites have a high degree of penetration within the wider student body, it must be acknowledged that there may be a slight degree of bias within the sample frame.

In addition to this, the small sample of 119 respondents increased the likelihood of results that were not statistically significant. However it could be argued that, due to the nature of the topic and the narrow range of individuals involved, the results that were deemed to be not statistically significant cannot be completely dismissed as random.

Regarding the use of an informational video clip in an attempt to compensate for the lack of face-to-face contact, according to viewing figures associated with the survey, just over 20% of respondents opted to watch the media file. However there was no examination in the questionnaire about the effectiveness of such a video clip; this may be something to consider in the future.

Due to its design and time-constraints the survey was limited to young people, following in the footsteps of previous research, and specifically young people in the form of University of Edinburgh students. From this point of view it is difficult to infer generalisations from the results out with the confines of the University.

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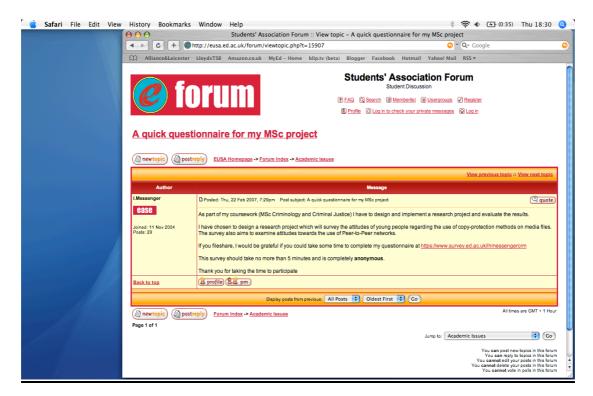
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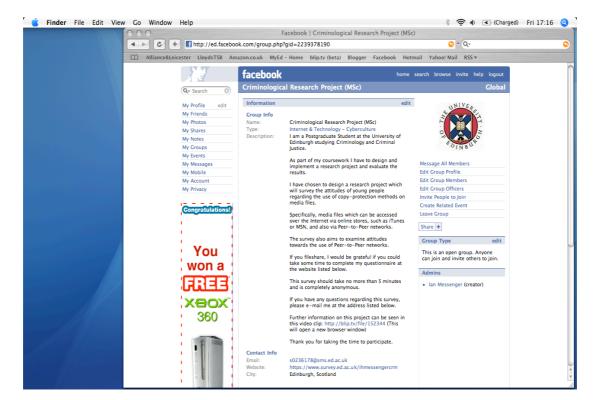
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Appendix A - Advertisements

Advertisement for participants placed on the Edinburgh University Student's Association website.



Advertisement for participants placed on the social-networking website 'Facebook'.



Appendix B – Information Video

Information video produced for participants to outline aims/objectives and structure of the questionnaire. Running time: 1minute 30seconds. This video file can be accessed at http://blip.tv/file/152344



Appendix C – Questionnaire

The following images represent the questionnaire, in its entirety, as seen by the participant, hosted by the Bristol Online Survey. This survey could be accessed from 22/02/07 to 22/03/07 at https://www.survey.ed.ac.uk/ihmessengercrm

